

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-020733**Date Inspected:** 18-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang and Zhu Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 12CW (Bottom Panel to Side Panel hold back weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg3006A-011. The welder identification was 057333 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as weld connecting Bottom Panel to Side Panel hold back weld at work point W4.

Please reference the pictures attached for more comprehensive details.

Segment 12BE to Segment 12CE (Edge Panel, Transverse Splice weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12E-002. The welder identification

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was 052493 and observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-345-SMAW-2G(2F)-FCM-Repair-1. The piece mark was identified as the Edge Panel Transverse splice, Bike Path side, at transverse splice. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20195.

Please reference the pictures attached for more comprehensive details.

Segment 12BE to Segment 12CE (Bottom Panel, Transverse Splice weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12C-001. The welder identification was 044515 and observed welding in the 1G (Flat) position using approved Welding Procedure Specification WPS-345-SMAW-1G(1F)-FCM-Repair-1. The piece mark was identified as the Bottom Panel, at transverse splice. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20190.

Segment 12BE to Segment 12CE (Bottom Panel, Transverse Splice weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12C-001. The welder identification was 040320 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as the Bottom Panel, at transverse splice. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20190.

Segment 12BE to Segment 12CE (Side Panel, Transverse Splice weld)

This QA Inspector observed the repair welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12E-002. The welder identification was 040367 and 052763 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-345-FCAW-3G(3F)-ESAB-1. The piece mark was identified as the Side Panel Cross Beam side, at transverse splice. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20176.

Please reference the pictures attached for more comprehensive details.

Segment 12BE to Segment 12CE (Side Panel, Transverse Splice weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12E-002. The welder identification was 044515 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as the Side Panel, Cross Beam side, at transverse splice. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20176.

Segment 12CE (Deck Panel to Edge Panel)

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This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA3005-002. The welder identification was 052493 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as the weld connecting the Deck Panel to the Edge Panel, Bike Path side. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20195.

Segment 12CE (Side Panel to Edge Panel)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA3005-001. The welder identification was 052493 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as the weld connecting the Side Panel to the Edge Panel, Bike Path side. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20202.

Segment 12AW to Segment 12BW (Deck Panel I- Rib Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as DP3060-001-025. The welder identification was 041713 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-3213-B-U3b-FCM-1. The piece mark was identified as the Deck Panel, I-Rib splice at Counter Weight side.

Segment 12AW to Cross Beam # 17

This QA Inspector observed ZPMC personnel welding the temporary attachments for the Deck Panel extension at Segment 12AW to the Cross Beam # 17 between PP 110 to PP 111 and PP 111 to PP 112 for fit-up purpose. The welder was identified as 205616.

Please reference the pictures attached for more comprehensive details.

Segment 12AE

This QA Inspector observed ZPMC personnel performing bolts installation and pre-sung tightening for the bolts installed at Lower Chevron for Segment 12AE at PP 110 at work point E4.

Please reference the pictures attached for more comprehensive details.

Segment 12AE

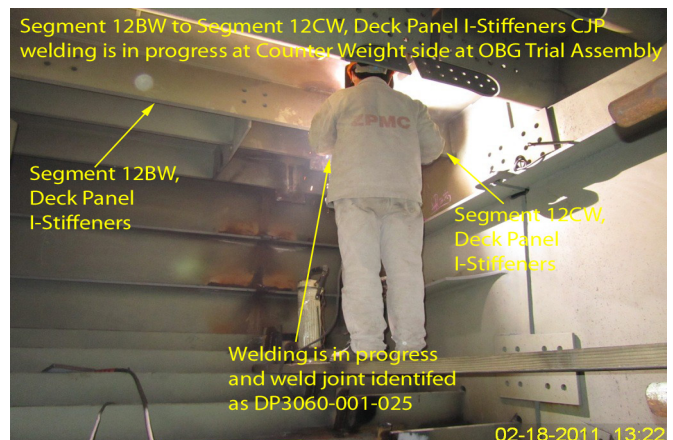
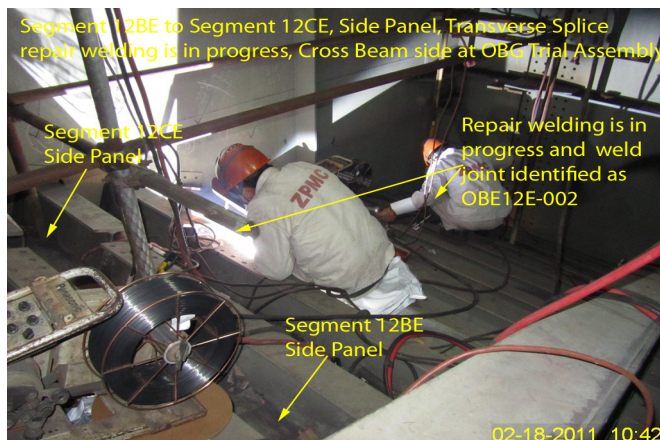
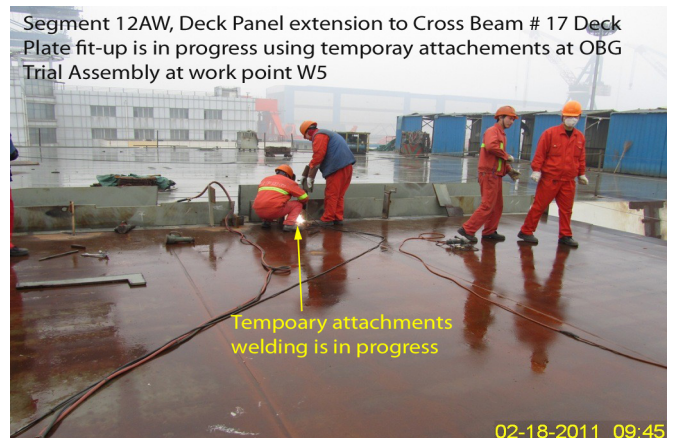
This QA Inspector observed ZPMC personnel removed the east and west side of splice plates of the Lower Chevron and observed faying surface cleaning is in progress for Segment 12AE at PP 109 at Cross Beam side.

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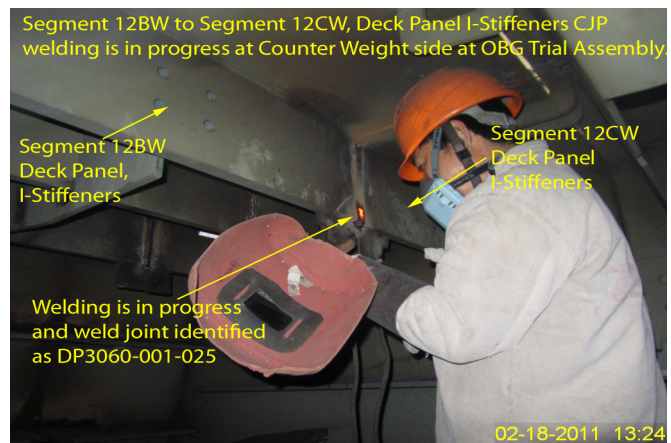
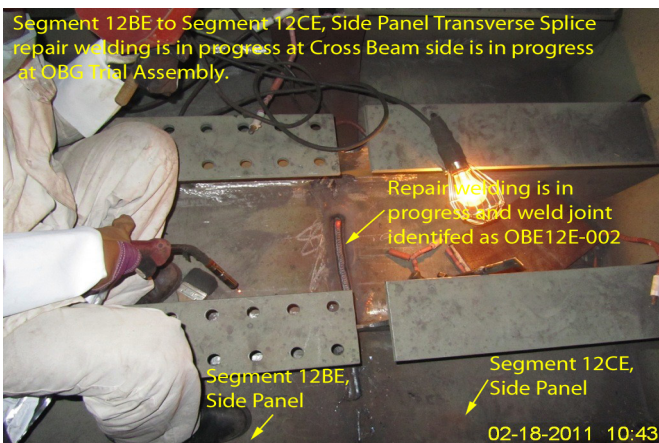
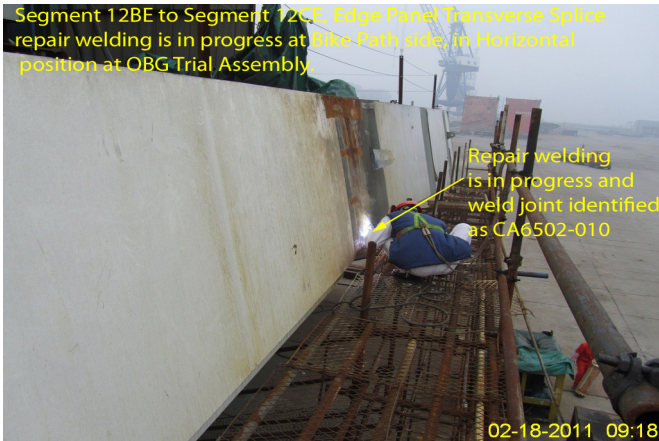
Please reference the pictures attached for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Miller,Mark

QA Reviewer